Amendments to the Specification:

Please replace the second paragraph on page 15 with the following amended paragraph:

Then the surface is provided with a bifunctional linker, for example, phenylene diisothiocyanate or adipic acid di(N-hydroxysuccinimidyl) ester. This linker permits a covalent binding of the oligonucleotides under basic conditions. In this case, the oliogonucleotides:

AAC TCC CCA ATA CTA CAA CC (MRP3) SEQ ID NO: 1

AAAATACACAAACRCTCCCA (MRP3) SEQ ID NO: 2 and

CTACAATAATCTTTCTTCAACATACTTA (MDR1) SEQ ID NO: 3

TAA AAA CTA TCC CAT AAT AAC TCC CAA C (MDR 1) SEQ ID NO: 4,

which are complementary to the primers used in the amplification step, are introduced onto the substrate surface by automatic pipetting or spotting at defined positions.

Please replace the first paragraph on page 16 with the following amended paragraph:

A genomic DNA sample (18 ng), which has been digested with the restriction enzyme Mss 1, is used in the case of the unmethylated sample. The first sample is amplified over 40 cycles with the use of 25 pmol of each of the specific primers:

CAAGCATGCTGAAGAAAGACCACTGCAG (MDR1) SEQ ID NO: 5

TGGGAACTGTCCCATAATAACTCCCAAC (MDR1) SEQ ID NO: 6

using the following program: T = 96.0°C, 10 min; T = 96.0°C 30 s; T = 58.0°C, 1:15 min; T = 72.0°C, 2 min; T = 72.0°C, 15 min.

Please replace the paragraph bridging pages 16 and 17 with the following amended paragraph:

The second sample is amplified over 45 cycles also with 25 pmol of the specific primers:

GGC TGC AGC ACT GGG GAG CC (MRP3) SEQ ID NO: 7

GGC TCC CCA GTG CTG CAG CC (MRP3) SEQ ID NO: 8

and the following program: T = 96.0°C, 10 min; T = 96.0°C, 1 min; T = 55.0°C, 45 s; T = 72.0°C, 1:15 min, over T = 72.0°C 10 min. Both amplified products are converted chemically with bisulfite (= hydrogen sulfite, disulfite) and a free-radical scavenger at elevated temperature. The bisulfite reaction leads to the conversion of all unmethylated cytosine bases to uracil. In order to purify the modified amplified products, the latter are bound to a reversed phase C18 solid phase and freed of chemicals by washing. Then the DNA is eluted with a polar solvent, such as, e.g., acetonitrile or water. The alkaline hydrolysis of the amplified product treated with ~~bisulfate~~ bisulfite is conducted directly prior to the repeated specific amplification in which the fluorescence-labeled nucleotide is utilized. Defined fragments with lengths of 633 bp (MDR1) and 640 bp (MRP3), which fluoresce due to the defined incorporation of Cy5-dCTP are amplified.

Please replace the first full paragraph on page 17 with the following amended paragraph:

The two genes MDR1 and MPR3 are in turn amplified, with 25 pmole of each primer:

TAAGTATGTTGAAGAAAGATTATTGTAG (MDR1), SEQ ID NO:9

TAAAAACTATCCCATAATAACTCCCAAC (MDR1), SEQ ID NO:4

AACTCCCCAATACTACAAC (MPR3), SEQ ID NO:10

TGGGAGYGTTTGTGTATTTT (MRP3) SEQ ID NO:11

and 0.5-0.75 mM cy5-dCTP in the PCR. The PCR is run under the following conditions: MDR1: T = 96.0°C 20 min; T = 96.0°C 30 s; T = 54.6°C 1:15 min; T = 72.0°C 2 min; T = 72.0°C 15 min, over 40 cycles; MRP3: T = 96.0°C 20 min; T = 96.0°C 30 s; T = 61.70°C 1:15 min, T = 72.0°C 2 min; T = 72.0°C 15 min, over 40 cycles.

Please replace the first full paragraph on page 18 with the following amended paragraph:

PCR is conducted with 25 pmole of each specific primer:

TAAGTATGTTGAAGAAAGATTATTGTAG (MDR1), SEQ ID NO:9

TAAAAACTATCCCATAATAACTCCCAAC (MDR1), SEQ ID NO:4

AACTCCCCAATACTACAEAC (MPR3), SEQ ID NO:10

TGGGAGYGTTTGTGTATTTT (MRP3) SEQ ID NO:11

and 0.5-0.75 mM Cy5-dCTP.

Please replace the paragraph bridging pages 18 and 19 with the following amended paragraph:

The amplified products bound to the surface-bound oligonucleotides (oligomer array), which are in this example, as in 1), the sequences:

AAC TCC CCA ATA CTA CAA CC (MRP3) SEQ ID NO: 1

AAAATACACAAACRCTCCCA (MRP3) SEQ ID NO: 2 and

CTACAATAATCTTTCTTCAACATACTTA (MDR1) SEQ ID NO: 3

TAA AAA CTA TCC CAT AAT AAC TCC CAA C (MDR 1) SEQ ID NO: 4

are detected on the basis of their fluorescence at 635 nm. A commercially available fluorescence scanner (e.g. Genepix 4000, Axon Laboratories) is used for this purpose.